

CME4LIFE PRESENTS



PA PREP: JANUS



CME4LIFE

maximize your mind

Cardiology

HEART FAILURE

LEFT SIDED HEART FAILURE

Causes

- CAD and HTN

Clinical Manifestation

- Fluid backing up into lungs
- Dyspnea/orthopnea
- Pulmonary congestion (rales, rhonchi)
- Cheyne Strokes breathing
- Pale skin, diaphoresis, cool extremities

Treatment

- Lifestyle modifications, diuretics, ACEI/ARB, BB

RIGHT SIDED HEART FAILURE

Causes

- Left sided heart failure

Clinical Manifestation

- Systemic fluid retention
- Peripheral edema
- JVD
- GI/hepatic congestion (nausea/vomiting, RUQ tenderness, hepatojugular reflux)

Treatment

- Lifestyle modifications, diuretics, ACEI/ARB, BB

SYSTOLIC VALVULAR DISORDERS

AORTIC STENOSIS

- Systolic

Etiology

- Degenerative

Presentation

- Angina, syncope, CHF

Murmur

- Systolic ejection at RUSB
- Crescendo-decrescendo

Radiation

- Carotid arteries

Heart Sounds

- Paradoxically split S2
- Narrow pulse pressure

Treatment

- Aortic valve replacement
- Open heart surgery vs transcatheter

MITRAL REGURGITATION

- Systolic

Etiology

- MVP

Presentation

- Dyspnea

Murmur

- Blowing holosystolic at apex

Radiation

- Axilla

Heart Sounds

- Widely split S2

Treatment

- Vasodilators, valve repair or replacement

DIASTOLIC VALVULAR DISORDERS

MITRAL STENOSIS

- Diastolic

Etiology

- Rheumatic heart disease

Presentation

- Right sided heart failure
- A.fib, pulmonary HTN

Murmur

- Diastolic rumble at apex
- Opening snap

Radiation

- No radiation

Heart Sounds

- Prominent S1
- Opening snap
- Reduced pulse pressure

Treatment

- Valvotomy repair
- Mitral balloon valvotomy or mitral valve replacement

AORTIC REGURGITATION

- Diastolic

Etiology

- HTN, Marfan syndrome, endocarditis

Presentation

- Left sided heart failure

Murmur

- Diastolic decrescendo at LUSB
- Austin flint murmur

Radiation

- Left sternal border

Heart Sounds

- Bounding pulse
- Wide pressure pulse
- Pulse bisferiens

Treatment

- Vasodilators
- Aortic valve replacement if failed medication treatment

CARDIOMYOPATHIES

DILATED CARDIOMYOPATHY

- Systolic dysfunction
- Ventricular dilation

Causes

- Idiopathic, viral

Clinical Manifestations

- Systolic heart failure symptoms
- Arrhythmias
- Viral myocarditis

Physical Exam

- Pulmonary congestion
- Peripheral edema
- Increased JVD
- S3/rales

Diagnosis

- ECHO - Left heart enlargement
- CXR - Cardiomegaly

Treatment

- ACEI, diuretics, BB

HYPERTROPHIC CARDIOMYOPATHY

- Diastolic dysfunction
- Impaired ventricular filling (bulky septum)

Causes

- Inherited disorders, younger patients

Clinical Manifestations

- Often asymptomatic
- Dyspnea
- Sudden cardiac death
- Presyncope and syncope
- Palpitations

Physical Exam

- Harsh systolic crescendo - decrescendo murmur
- Bisferiens carotid pulse
- Loud S4
- JVP with a strong "a wave"

Diagnosis

- ECHO - Asymmetric wall thickness
- EKG - LVH

Treatment

- BB (NO diuretics)

ANGINA

STABLE ANGINA

- Caused by coronary plaque

Risk Factors

- DM, age, male, HTN, dyslipidemia, family history, smoking, obesity

Clinical Presentation

- Chest pain relieved by rest
- Chest pain relieved by nitro
- Pain can radiate to arm or jaw

Diagnosis

- EKG normal
- Negative cardiac enzymes

Treatment

- Daily aspirin, BB
- Reduce risk factors
- Statins

UNSTABLE ANGINA

- Caused by atherosclerosis and coronary artery thrombosis

Risk Factors

- DM, age, male, HTN, dyslipidemia, family history, smoking, obesity

Clinical Presentation

- Retrosternal chest pain > 30 min
- Chest pain not relieved by nitro or rest
- Pain can radiate to arm or jaw

Diagnosis

- EKG may be normal or ST segment depression / T wave inversions
- Negative cardiac enzymes

Treatment

- Daily aspirin or other anti-thrombotic meds
- Reduce risk factors
- Beta-Blockers and nitrates
- Statins
- PCI

HEART ATTACK - STEMI VS. NON-STEMI

STEMI

- Caused by plaque rupture that leads to an acute coronary artery thrombosis
- Full thickness damage of heart muscle

Risk Factors

- DM, HTN, atherosclerosis, dyslipidemia, age, male, family history, smoking

Clinical Manifestations

- Retrosternal chest pain that is not relieved by rest and lasts for >30 mins
- Pain can radiate to jaw, back, neck, epigastrium
- Diaphoresis, tachycardia, nausea/vomiting, palpitations, dizziness and anxiety

Diagnosis

- EKG - ST Elevations with reciprocal changes in opposite leads or a LBBB
- Total occlusion by thrombosis
- Cardiac enzymes positive

Treatment

- Reperfusion therapy - primary PCI
- Thrombolytic therapy - rTPA
- Antithrombotic therapy - Aspirin/Heparin
- BB, ACEI, nitrates, morphine, statin

NON-STEMI

- Caused by plaque rupture that leads to an acute coronary artery thrombosis
- Partial thickness damage of heart muscle

Risk Factors

- DM, HTN, atherosclerosis, dyslipidemia, age, male, FH, smoking

Clinical Manifestations

- Retrosternal chest pain that is not relieved by rest and lasts for >30 mins
- Pain can radiate to jaw, back, neck, epigastrium
- Diaphoresis, tachycardia, nausea/vomiting, palpitations, dizziness and anxiety

Diagnosis

- EKG-ST depressions/T wave inversions
- Subtotal occlusion by thrombosis
- Cardiac enzymes positive

Treatment

- Antithrombotic therapy
- BB (Metoprolol), Nitrates
- May need cardiac cath

ATRIAL FIBRILLATION VS. ATRIAL FLUTTER

ATRIAL FIBRILLATION

- Chaotic electrical impulses in atrium from many sites
- Atria quivers – does not contract
- Pulse rapid and irregular

Causes

- HTN, CAD, ETOH abuse, Hyperthyroidism, heart valve disorder

Complications

- Blood clot in Atria
- Rapid heart rate = decreased output

Diagnosis

- EKG

Treatment

- Slow heart rate
 - Beta Blocker, Calcium Channel Blocker, Digoxin
- Restore Rhythm
 - Amiodorone
 - Synchronized Cardioversion
 - Ablation/Pacemaker

ATRIAL FLUTTER

- Coordinated electrical activity in atrium
- Atrial contraction present
- Pulse rapid, could be regular or irregular

Causes

- HTN, CAD, ETOH abuse, Hyperthyroidism, heart valve disorder

Diagnosis

- EKG

Treatment

- Slow heart rate
 - Beta Blocker, Calcium Channel Blocker, Digoxin
- Restore Rhythm
 - Amiodorone
 - Synchronized Cardioversion
 - Radiofrequency ablation in atria

SYNCOPE - VASOVAGAL VS. ORTHOSTATIC

VASOVAGAL SYNCOPE

- Heart rate slows and low blood pressure causes decreased blood flow to the brain
- Prodrome - LOC - post syncopal phase

Etiology

- Physical or psychological stress
- Sight of blood, pain or injury

Symptoms

- Dizziness, nausea, pale skin, sweating, "tunnel vision"

Diagnosis/Testing

- ECG
- Tilt Table
- Usually clinical diagnosis

Treatment

- Avoid triggers
- Lay down or sit if feeling faint

ORTHOSTATIC SYNCOPE

- Heart rate slows and low blood pressure causes decreased blood flow to the brain

Etiology

- Medications - BP meds, opiates, diuretics

Symptoms

- Dizziness, nausea, pale skin, sweating, "tunnel vision"

Diagnosis/Testing

- ECG

Treatment

- Use compression stockings
- Hydration
- Medication adjustment
- Slow position change

Dermatology

PEMPHIGUS VULGARIS VS. BULLOUS PEMPFIGOID

PEMPHIGUS VULGARIS

- Age 40 - 60yr
- Type II HSN Autoimmune
- Attack on epidermis
- Increased risk with Jewish ancestry, South-eastern European descent or Middle Eastern descent

Clinical Manifestations

- Oral mucosal ulcerations
- Skin bullae (ruptures easily)
- Positive Nikolsky sign

Treatment

- Systemic corticosteroids
- Immuno-modulatory medication

BULLOUS PEMPFIGOID

- Age 60 - 65yr
- Type II HSN Autoimmune
- Attack on subepidermal

Clinical Manifestations

- Tension bullae (don't rupture)
- Negative Nikolsky sign

Treatment

- Systemic corticosteroids
- Prodromal phase: positive pruritic inflammatory plaques

KERATOSIS - ACTINIC VS. SEBORRHEIC

ACTINIC KERATOSIS

- Premalignant to squamous cell carcinoma
- Fair skinned elderly with prolonged sun exposure
- Male > Female

Clinical Manifestations

- Dry, rough, scaly, "sand paper" lesion
- Hyper-pigmented plaques

Treatment

- Observation
- Cryosurgery
- Topical 5 - FU
- Topical immune response modifier
- Biopsy > 1cm lesion, rapidly growing or ulcerated lesions

SEBORRHEIC KERATOSIS

- Benign skin tumor

Clinical Manifestations

- Small papule/plaque
- Velvety warty lesion, well demarcated
- Greasy/stuck on appearance

Treatment

- Observation

SKIN CANCERS

BASAL CELL CARCINOMA

- Most common type of skin cancer in the US

Etiology

- Fair skin with prolonged sun exposure
- Face, nose and trunk

Presentation

- Flat, small, raised, pearly, waxy papule
- Central ulceration with raised borders
- Telangiectatic vessels

Diagnosis

- Punch or shave biopsy

Treatment

- Electric desiccation/curettage
- Slow growing; rarely metastasis

SQUAMOUS CELL CARCINOMA

Etiology

- Actinic keratosis
- HPV infection
- Found on any cutaneous surface

Presentation

- Red, elevated nodule
- White, scaly with ulcerated margins

Diagnosis

- Biopsy

Treatment

- Excision (curative)
- Cryotherapy
- Topical 5 - FU
- Photodynamic therapy

HERPES SIMPLEX 1 (HSV-1) VS. HERPES SIMPLEX 2 (HSV-2)

HSV-1

Presentation

- Cold sores
- Reoccurring
- Asymptomatic shedding

Complications

- Infections
- Herpes whitlous

Diagnosis

- Viral complications
- Polymeras chain reaction (PCR)
- Serology

Treatment

- Topical antiviral therapy

HSV-2

Presentation

- Painful genital ulcers
- Constitutional symptoms
- Reoccurring
- Asymptomatic viral shedding

Complications

- Disseminated HSV

Diagnosis

- Viral complications
- Polymeras chain reaction (PCR)
- Serology
- Tzanck-smear

Treatment

- Oral anti-viral therapy
- Suppressive therapy

LICHEN PLANUS VS. LICHEN SIMPLEX CHRONICUS

LICHEN PLANUS

- Cell-mediated immune response
- Common in middle age adults

Diagnosis

- Skin Biopsy

Clinical Manifestation

- 5 P's - Purple, Polygonal, Planar, Pruritic, Papules
- Fine Scales
- Lacy lesions of oral mucosa
- Skin, mouth, scalp, genitals, or nails
- Can be associated with HCV

Treatment

- Topical steroids or intralesions, phototherapy, selt limiting

LICHEN SIMPLEX CHRONICUS

- Skin thickening due to repetitive scratching or rubbing
- Middle age Female > Male

Clinical Manifestation

- Scaly, well-demarcated, rough plaques
- Pruritis
- Palms, soles, and fingers

Treatment

- Topical steroids

PSORIASIS (CHRONIC PLAQUE PSORIASIS) VS. NUMMULAR ECZEMA

PSORIASIS

Presentation

- Symmetrically distributed
- Sharply defined raised margins
- Thick silvery scales

Complications

- Increased risk for joint eye, systemic disorder

Diagnosis

- Skin exam
- Biopsy

Treatment

- Emollients
- Topical steroids
- Phototherapy
- Biologics

NUMMULAR ECZEMA

Presentation

- Male > Female
- > 50 y/o
- Pruritic, round coin shaped
- Acute and chronic phase

Diagnosis

- Skin exam
- Biopsy

Treatment

- Moisturizer
- Topical steroids
- Phototherapy
- Methotrexate

ERISYPELAS VS. CELLULITIS

ERISYPELAS

Etiology

- Strep

Presentation

- Well demarcated
- Erythematous plaque
- Face/leg
- Infants/elderly

Risk Factors

- Pre existing lymphedema

Diagnosis

- Clinically

Treatment

- Antibiotic (IV/PO)
- Cool compress
- Hydration
- Elevation of affected site

CELLULITIS

Etiology

- Strep/staph
- MRSA (purulent)

Presentation

- Soft tissue erythema and swelling

Diagnosis

- Clinically

Treatment

- Antibiotic (IV/PO)

EENT

UPPER AIRWAY OBSTRUCTIONS

CROUP

Etiology

- Parainfluenza
- RSV
- 6-36 months

Symptoms

- Inspiratory Strider
- Barky cough

Diagnosis

- Radiograph – Steeple sign
- Clinical diagnosis

Treatment

- Supportive – Oxygen and humidified air

EPIGLOTTITIS

Etiology

- H. Flu type b (Hib)
- Trauma
- Children and Adults

Symptoms

- Drooling
- “Tripod” position
- High pitched voice

Diagnosis

- Radiograph – Thumbprint sign
- Direct Visualization

Treatment

- Secure airway and IV antibiotics

EYELID SWELLING

HORDEOLUM

- Abscess of the eyelid margin (external)

Symptoms

- Painful
- Red lump on eyelid
- Acute

Treatment

- Warm compress
- I & D
- Topical antibiotic if drained

Organisms

- Sterile
- Staph aureus

Treatment

- Warm compress
- I & D
- Topical antibiotic if drained

CHALAZION

- Granuloma of internal sebaceous gland

Symptoms

- Painless
- Rubbery, nodular lesion

Treatment

- Warm compress
- I & D
- Increased hygiene of the eyelid

PINGUECULA VS. PTERYGIUM

PINGUECULA

- Yellow elevated nodule
- Arises from temporal conjunctiva
- Build up of fat and protein
- Non-proliferative
- No corneal involvement

Treatment

- None

PTERYGIUM

- Elevated fleshy triangular shaped mass
- Arises from nasal conjunctiva
- Proliferative
- Chronic sun exposure

Symptoms

- Redness and irritation
- Visual disturbance if corneal involvement

Treatment

- Observation
- Removal if affecting vision

DIZZINESS

BENIGN PAROXYSMAL POSITIONAL VERTIGO (BPPV)

- Most common cause of vertigo
- Vertigo caused by displaced otoliths

Clinical Manifestation

- Peripheral vertigo recurrent < 1 minute

Diagnosis

- Dix-Hallpike horizontal nystagmus

Treatment

- Epley maneuver to reposition the otolith into the canal

VESTIBULAR NEURITIS (LABYRINTHITIS)

- Viral or post inflammatory disorder of the vestibular portion of CN VIII in the inner ear

Clinical Manifestation

- Continuous peripheral vertigo
- Dizziness
- Nausea/vomiting
- Gait disturbance

Diagnosis

- Clinically
- Head thrust test

Treatment

- 1st line - Corticosteroids
- Symptomatic - Antihistamines

HEARING LOSS WITH TINNITUS AND DISEQUILIBRIUM

ACOUSTIC NEUROMA (VESTIBULAR SCHWANNOMA)

- Benign tumor of the Schwann cells; CN VIII

Clinical Manifestations

- Unilateral hearing loss
- Headache
- Facial numbness
- 50 y/o

Diagnosis

- MRI or CT scan
- Audiometry

Treatment

- Surgery

MENIERE'S DISEASE

- Idiopathic distention of the inner ear compartment by excess fluid, which causes increased pressure

Clinical Manifestations

- Episodic peripheral vertigo
- Sensorineural hearing loss
- Ear fullness
- Nausea/vomiting
- Audiometry

Diagnosis

- Dix - Hallpike test

Treatment

- Symptomatic - Meclizine, benzodiazepines, and steroids
- Preventative - Diuretics and avoid caffeine, salt, chocolate, and ETOH

Endocrine

AUTOIMMUNE THYROID DISORDERS WITH GOITERS

GRAVES DISEASE

- Hyperthyroidism
- Diffuse toxic goiter
- Exophthalmos

Precipitating Factors

- Female > Male
- Smoking
- Stress
- Infection
- Drugs
- Pregnancy

Diagnosis

- Low TSH and high T4
- RAIU: Increase diffuse uptake
- Positive Antibodies
 - antithyropoxidase
 - antithyroglobulin

Treatment

- Radioactive iodine
- Thiourea drugs
- Thyroidectomy
- Symptoms control (Beta Blockers)

HASHIMOTO'S THYROIDITIS

- Hypothyroidism
- Painless, enlarged thyroid
- Dry mouth and eyes
- +/- transient hyperthyroid in early disease

Precipitating Factors

- Female > Male
- Stress
- Infection
- Pregnancy
- Radiation exposure

Diagnosis

- High TSH and low T4

Treatment

- Levothyroxine

DIABETES INSIPIDUS

CENTRAL

- ADH (vasopressin) deficiency

Etiology

- Idiopathic
- Congenital disorder
- Neurosurgery or trauma
- Primary or secondary cancer
- Anorexia

Presentation

- Polyuria
- Polydipsia
- Nocturia
- Dehydration (hypernatremia)

Diagnosis

- Fluid deprivation test - urine osmolality <200 & specific gravity <1.005
- Desmopressin simulation test - differentiates between central and nephrogenic

Treatment

- Desmopressin/DDAVP

NEPHROGENIC

- Insensitivity to ADH

Etiology

- Hereditary
- Lithium Toxicity
- Hypercalcemia

Presentation

- Polyuria
- Polydipsia
- Nocturia
- Dehydration (hypernatremia)

Diagnosis

- Fluid deprivation test - urine osmolality <200 & specific gravity <1.005
- Desmopressin simulation test-differentiates between central and nephrogenic

Treatment

- Hydrochlorothiazide, Indomethacin
- Low sodium, low protein diet

DIABETES MELLITUS

TYPE 1

- Pancreatic beta cell destruction (no longer producing insulin)

Risk Factors

- Most commonly in children and autoimmune

Presentation

- Polyuria, polydipsia, polyphagia, and weight loss

Diagnosis

- Fasting plasma glucose > 126 mg/dL
- Hemoglobin A1C > 6.5%
- 2 hour plasma glucose >200 mg/dL

Treatment

- Insulin therapy is required

Complications

- Neuropathy, retinopathy, nephropathy, CAD, hypoglycemia, infections

TYPE 2

- Insulin resistance and impairment to secrete insulin

Risk Factors

- Genetic factors, weight gain, decreased physical activity, hypertension

Presentation

- Typically asymptomatic but could present with polyuria, polydipsia, polyphagia, and weight loss

Diagnosis

- Fasting plasma glucose > 126 mg/dL
- Hemoglobin A1C > 6.5%
- 2 hour plasma glucose >200 mg/dL

Treatment

- Diet, exercise and lifestyle modification is first line, followed by oral anti-hypoglycemic agents

Complications

- Neuropathy, retinopathy, nephropathy, CAD, hypoglycemia, infections

DKA VS. HHNS

DIABETIC KETOACIDOSIS

Onset

- Younger patients (Type 1 DM)

Pathophysiology

- Hyperglycemia
- Potassium deficit
- Ketonemia (metabolic acidosis)

Physical Exam

- Weakness, fatigue, confusion, tachycardia, tachypnea, hypotensive
- Abdominal pain
- Ketotic breath
- Kussmaul's respiration

Diagnosis

- Plasma Glucose >250
- Arterial pH <7.3
- Ketones Positive

Treatment

- Correction of fluid and electrolyte abnormality
- Insulin

HYPEROSMOLAR HYPERGLYCEMIC NONKETONIC SYNDROME

Age

- Older patients (Type 2 DM)

Pathophysiology

- Hyperglycemia, dehydration
- Potassium deficit

Physical Exam

- Weakness, fatigue, confusion, tachycardia, tachypnea, hypotensive

Diagnosis

- Plasma Glucose >600
- Arterial pH >7.3
- Ketones Negative

Treatment

- Correction of fluid and electrolyte abnormality
- Insulin

HYPERPARATHYROIDISM VS. HYPOPARATHYROIDISM

HYPERPARATHYROIDISM

Etiology

- Primary
 - Excess PTH due to adenoma
 - Parathyroid enlargement
- Secondary
 - Increased PTH in response to hypocalcemia or vitamin D deficiency
 - Most commonly due to CKD

Clinical Manifestations

- "Stones, bones, groans, psychotic moans"
- Decreased DTR

Diagnosis

- Hypercalcemia, Elevated PTH
- Decreased phosphate
- Increase in 24hr urine calcium excretion

Treatment

- Parathyroidectomy

HYPOPARATHYROIDISM

Etiology

- Primary
 - Low PTH or insensitivity to its action
- Secondary
 - Accidental damage or removal of the parathyroid
 - Autoimmune disease of gland

Clinical Manifestations

- Trousseau & Chvostek sign
- Increased DTR

Diagnosis

- Hypocalcemia
- Increased phosphate
- Low PTH

Treatment

- Calcium with vitamin D supplements

HYPOTHYROIDISM VS. HYPERTHYROIDISM

HYPOTHYROIDISM

Etiology

- Hashimoto's thyroiditis, iodine deficiency
- Pituitary or hypothalamic problem, postpartum

Clinical Manifestations

- Cold intolerance, weight gain, dry skin, rough skin, fatigue, memory loss, hoarseness, constipation, bradycardia, hypoglycemia

Diagnosis

- Increased TSH
- Low FT4

Treatment

- Levothyroxine

HYPERTHYROIDISM

Etiology

- Grave's disease, toxic goiter
- TSH secreting tumor, lithium

Clinical Manifestations

- Heat intolerance, weight loss, moist skin, anxiety, tremors, diarrhea, tachycardia, hyperglycemia

Diagnosis

- Decreased TSH
- High FT4

Treatment

- Methimazole or PTU
- Surgery

Gastrointestinal

INFLAMMATORY BOWEL DISEASES

CROHN'S DISEASE (TRANSMURAL)

- Skip Areas
- Full thickness inflammation
- Right-sided pain
- String sign
- Mouth to anus except rectum
- Either small or large intestines

Symptoms

- Fistulas, fissures and abscesses
- Non-bloody diarrhea
- Pain
- Weight loss
- Fatigue
- Increased risk with family history and tobacco use

Diagnosis

- Colonoscopy - Cobblestone appearance

Treatment

- Surgery is not curative
- Anti-inflammatory drugs
- Steroids
- Immune system suppressors

ULCERATIVE COLITIS (MUSCOSA)

- NO skip areas
- Mucosal involvement
- Left-sided pain
- Lead pipe appearance
- Colon to rectum
- Spares anus

Symptoms

- Bloody diarrhea

Diagnosis

- Colonoscopy
- Capsule endoscopy
- CT

Treatment

- Surgery is curative
- Anti-inflammatory drugs
- Steroids
- Immune system suppressors

TOXIC MEGACOLON VS. HIRSCHSPRUNG'S DISEASE

TOXIC MEGACOLON

Etiology

- Complications of IBD
- Infectious colitis
- Any age

Presentation

- Marked dilation of colon
- Thinning of bowel wall
- Deep ulcerations

Signs/Symptoms

- Bloody diarrhea
- Altered mental status
- Fever, increased heart rate
- Postural hypotension
- Abdominal distention

Diagnosis

- Abdominal X-Ray

Treatment

- Bowel rest, Ng tube
- Enteral feeding
- IV steroids
- +/- surgery

HIRSCHSPRUNG'S DISEASE

Etiology

- Genetic mutation
- Associated with Down's syndrome
- Usually neonatal period

Presentation

- Abdominal distention
- Vomiting
- Failure to pass meconium or stool

Diagnosis

- Rectal biopsy - gold standard
- Contrast enema
- Abdominal X-Ray

Treatment

- Surgery

DUODENAL ULCER VS. GASTRIC ULCER

DUODENAL ULCER

Site

- Duodenum

Cause

- NSAIDs
- Tobacco
- Obesity
- H. Pylori

Symptoms

- Pain 3-4 hours after eating
- Pain can be relieved by eating
- Melana

Treatment

- Antacids
- PPI
- Antibiotics (H. Pylori)

GASTRIC ULCER

Site

- Stomach

Cause

- H. Pylori (most common)
- NSAIDs
- Tobacco
- Obesity

Symptoms

- Pain 1-2 hours after eating
- Hematemesis

Treatment

- Antacids
- PPI
- Antibiotics (H. Pylori)

BILIARY COLIC VS. CHOLECYSTITIS

BILIARY COLIC

- Spasm of cystic duct that is dilated by gallstone

Symptoms

- Epigastric or RUQ pain < 3 hours
- Pain occurs frequently at night
- Nausea / Vomiting

Diagnosis

- Ultrasound, ECRP

Treatment

- Analgesic

CHOLECYSTITIS

- Obstruction resulting in inflamed gallbladder

Risk Factors

- Obesity, pregnancy, females

Symptoms

- Positive Murphy's sign
- RUQ pain > 3 hours
- Low grade fever
- Nausea/vomiting

Diagnosis

- Ultrasound
- HIDA scan

Treatment

- Analgesic
- Antibiotics

GERD VS. GASTRITIS

GERD

- Gastroesophageal reflux
- Stomach content refluxes back into esophagus or mouth

Symptoms

- Heart burn
- Regurgitation
- Dysphagia
- Chest pain
- Nausea
- Cough

Etiology

- LES relaxes
- Hiatal hernia

Diagnosis

- EGD
- Barium swallow
- Can be clinically diagnosed
- 24 hour esophageal pH study
- Esophageal manometry

Treatment

- Lifestyle and diet modifications
- Antacids
- H2 Blockers
- PPI
- Antibiotics (H. Pylori)

Complications

- Barretts esophagus
- Strictures
- Esophageal ulcers

GASTRITIS

- Inflammatory process

Symptoms

- Abdominal pain
- Bloating
- Nausea / vomiting

Etiology

- Infection
- NSAIDs
- ETOH
- Stress

Diagnosis

- EGD
- Barium swallow

Treatment

- Antacids
- Surface agents
- Histamine blockers
- PPI

Complications

- Ulcers
- GI bleed

Genitourinary

PHIMOSIS VS. PARAPHIMOSIS

PHIMOSIS

- Inability to retract foreskin over glans of penis

Symptoms

- Painful erections and ballooning during urination

Treatment

- Non-emergent

PARAPHIMOSIS

- Entrapment of retracted foreskin behind coronal sulcus

Symptoms

- Painful, swollen glans of penis

Treatment

- Emergent reduction

ACIDOSIS: METABOLIC VS. RESPIRATORY

METABOLIC ACIDOSIS

- Too much acid or not enough bicarbonate
- Increased acid generation
- Loss of bicarb
- Diminished renal excretion

Causes (KUSSMAL)

- K-Ketones
- U-Uremia
- S-Salicylates
- S-Sepsis
- M-Methanol
- A-Aldehyde (Isoniazid)
- L-Lactic Acidosis

Compensatory Response

- Respiratory cause decreased HCO₃

Treatment

- Treat underlying cause
- Decrease pH
- Decrease bicarb
- Sodium bicarb

RESPIRATORY ACIDOSIS

- Too much acid or not enough bicarbonate

Causes

- CNS depression (drugs/CVA)
- Pneumothorax
- Airway obstruction
- Pneumonia
- Pulmonary edema

Compensatory Response

- Metabolic increased HCO₃

Treatment

- Treat underlying cause

EPIDIDYMITIS VS. ORCHITIS

EPIDIDYMITIS

Etiology

- Bacterial
 - <35yr Chlamydia
 - >35yr E.coli

Clinical Manifestations

- Scrotal pain, erythema, edema
- Unilateral pain radiating to the flank
- Fever, chills, tachycardia
- Positive Prehn sign

Diagnosis

- Scrotal ultrasound
- UA (WBC and bacteriuria) if a bacterial cause

Treatment

- Chlamydia - Azithromycin or Doxycycline
- E.coli-Fluoroquinolones
- Scrotal elevation

ORCHITIS

Etiology

- Viral or bacterial (Mumps)

Clinical Manifestations

- Scrotal pain, erythema, edema
- Unilateral pain radiating to the flank
- Fever, chills, tachycardia
- Positive Prehn sign

Diagnosis

- Scrotal ultrasound
- UA (WBC and bacteriuria) if a bacterial cause

Treatment

- Symptomatic
- Scrotal elevation

Complications

- Testicular atrophy
- Impaired fertility

BPH VS. PROSTATE CANCER

BPH

- Prostate hyperplasia that leads to bladder outlet obstruction

Risk Factors

- Common in older men
- Normal aging process & increase in estrogen
- No association with prostate cancer

Clinical Manifestations

- Frequency, urgency, nocturia
- Incontinence
- Hesitancy, weak stream force

Diagnosis

- Digital rectal exam shows enlarged, firm rubbery prostate
- Increased prostate specific antigen >4 ng/mL

Treatment

- Observation
- 5-alpha reductase inhibitor
- Alpha 1 blockers
- Transurethral procedures

PROSTATE CANCER

- Slow growing tumor

Risk Factors

- Common in older men
- High fat intake, Family History, obesity, African American

Clinical Manifestations

- Frequency, urgency, nocturia, hematuria
- Incontinence
- Urinary retention
- Back or bone pain
- Weight loss

Diagnosis

- Digital rectal exam shows hard, nodular asymmetrical prostate
- Increased prostate specific antigen >10 ng/mL
- Ultrasound with needle biopsy

Treatment

- Hormone Therapy

PAINLESS BENIGN SCROTAL MASSES

Hydrocele

- Painless swelling of cystic fluid
- Transilluminates
- Observation, but can be removed surgically

Spermatocele

- Painless cystic mass in the epididymis containing sperm (2-5cm)
- Transilluminates
- Observation, but if chronic pain then surgically remove

Varicocele

- Testicular mass of varicose veins ("Bag of worms")
- Does NOT transilluminate
- Surgery in some cases, if symptomatic
- Mass is decreased in supine position; worse with Valsalva
- Dull ache in scrotum worse with standing, relieved in supine position

INCONTINENCE

STRESS INCONTINENCE

- Urine leakage due to intraabdominal pressure

Etiology

- Childbirth
- Surgery
- Post menopausal estrogen loss

Symptoms

- Cough, laugh, sneeze that leads to urine leakage

Treatment

- Pelvic floor exercises (Kegel exercises)
- Alpha agonists
- Surgery
- Estrogen cream

URGE INCONTINENCE

- Having the “urge” to go to the bathroom followed by urine leakage

Etiology

- Involuntary detrusor muscle contraction
- “Overactive bladder”

Symptoms

- Urgency, frequency and nocturia

Treatment

- Bladder training (decrease fluid intake)
- Anticholinergics
- TCA
- Botox injections

OVERFLOW INCONTINENCE

- Urinary retention (incomplete bladder emptying)

Etiology

- Decreased detrusor muscle activity, “underactive bladder,” bladder outlet obstruction BPH

Symptoms

- Frequency, dribbling, small volume voids

Treatment

- 1st line Indwelling catheter
- BPH: Alpha blockers

Hematology

LEUKEMIAS

ACUTE MYELOID LEUKEMIA

Onset

- >50yr

Symptoms

- Anemia, thrombocytopenia, splenomegaly, bone pain

Diagnosis

- Auer rods

Treatment

- Chemotherapy
- Radiation
- Bone marrow transplant

CHRONIC MYELOID LEUKEMIA

Onset

- >50yr

Symptoms

- Asymptomatic at first

Diagnosis

- Philadelphia Chromosome

Three Stages

- Chronic - Slow growing, can last for years
- Accelerated - Cancer begins to grow faster
- Blast - Fast growing and can be fatal

Treatment

- Tyrosine kinase inhibitors
- Chemotherapy
- Bone marrow transplant
- Interferon alpha

LEUKEMIAS

ACUTE LYMPHOCYTIC LEUKEMIA

- Most common in children
- Can affect adults > 65 y/o

Symptoms

- Hepatosplenomegaly
- Lymphadenopathy

Diagnosis

- Bone marrow - >20% blast chronic lymphocytic leukemia

CHRONIC LYMPHOCYTIC LEUKEMIA

- Most common in adults
- > 55 y/o
- M > F

Symptoms

- Lymphadenopathy
- Hepatosplenomegaly
- Can be asymptomatic

Diagnosis

- Smudge cells

Treatment

- Observation in early stage
- Radiation
- Chemotherapy

ANEMIAS

B12 DEFICIENCY

- Macrocytic anemia
- Abnormal synthesis of DNA

Etiology

- Malabsorption (Pernicious anemia)
- ETOH, Crohn's, Vegans

Presentation

- Pallor, glossitis, stomatitis
- Neurologic symptoms, peripheral neuropathy, ataxia, weakness, sensory, vibratory and proprioception deficits, decreased DTR

Diagnosis

- Increased MCV >115
- Decreased B12
- Hypersegmented neutrophils

Treatment

- B12 replacement (oral or injections)

FOLATE DEFICIENCY

- Macrocytic anemia
- No DNA synthesis

Etiology

- Malabsorption (diet or alcoholism)
- Pregnancy, hemolysis
- Drugs

Presentation

- Pallor, glossitis, stomatitis
- NO neurologic symptoms

Diagnosis

- Increased MCV
- Decreased folate, normal B12
- Hypersegmented neutrophils

Treatment

- Folic Acid replacement

PLATELET DISORDERS

IDIOPATHIC THROMBOCYTOPENIC PURPURA

- Autoimmune vs. platelets

Onset

- 3 years following viral infection

Presentation

- Increased bleeding (petechiae) bruises, purpura, bullae
- No splenomegaly

Diagnosis

- Normal coagulation tests
- Thombocytopenia
- Diagnosis of exclusion

Treatment

- Observation
- IVIG
- Glucocorticoids

THROMBOTIC THROMBOCYTOPENIC PURPURA

- Autoimmune vs. thrombosis of small vessels

Onset

- 35 y/o females
- African Americans

Presentation (Pentad)

- Thrombocytopenia
- Hemolytic anemia
- Kidney failure
- Neuro failure
- Fever

Diagnosis

- Normal coagulation tests
- Thrombocytopenia
- Peripheral smear (bite or fragmented cells)
- LFT's - increased indirect bilirubin

Treatment

- Plasmapheresis

SICKLE CELL DISEASE VS. HEMOLYTIC ANEMIA

SICKLE CELL DISEASE

- Autosomal recessive genetic d/o of HgbSS
- RBC sickling causing micro thrombosis and hemolytic anemia

Clinical Manifestations

- Early signs 6 months - Dactylitis, delayed growth and development
- Infections - Functional asplenia in adults
- Jaundice
- Gallstones
- Pain
- Dyspnea
- Crescent shaped RBC

Diagnosis

- Hemoglobin electrophoresis
- Peripheral smear - Target cells and Howell-Jolly bodies

Treatment

- Pain control and O2 in crisis
- Hydroxyurea
- Folic acid
- Make certain receives all vaccines

HEMOLYTIC ANEMIA

- Autoimmune: destruction by macrophages and spleen
- Warm agglutination - IgG Ab
- Cold agglutination - IgM Ab
- Intrinsic - Defective RBC
- Extrinsic - Caused by autoimmune, certain diseases, certain medications

Clinical Manifestation

- Anemia
- Acrocyanosis
- Fatigue and weakness
- Raynaud's
- Jaundice
- Gallstones

Diagnosis

- Direct Coombs test
- Peripheral smear - Microspherocytes agglutination of RBC
- +/- Increased reticulocytes

Treatment

- Steroids and immunosuppressant
- Splenectomy

Infectious Disease

RUBEOLA (MEASLES) VS. RUBELLA

RUBEOLA (MEASLES)

Incubation

- 6-21 Days

Contagious

- 5 days prior to infection

Transmission

- Person to person
- Airborne

Presentation

- Fever, cough, coryza, followed by exam them

Complications

- Secondary infections
- Diarrhea
- Pneumonia
- Encephalitis

Diagnosis

- Positive serologic test

Treatment

- Supportive

Prevention

- Vaccination

RUBELLA

Incubation

- 14-18 Days

Contagious

- 1-2 weeks prior to infection

Transmission

- Airborne

Presentation

- Pin point pink maculopapules on face, then trunk - after 24 hours - generalized

Complications

- Associated with arthralgia

Diagnosis

- Not specific or helpful

Treatment

- Supportive

Prevention

- Vaccination

TICK BITES

LYME DISEASE

- Borrelia burgdorferi
- Deer tick

Clinical Manifestations

- Early localized – Erythema Migrans (central “bullseye” or “raindrop”)
- Early disseminated (1-12 weeks) – arthralgias, weakness, meningitis, CN VII palsy, cardiac dysfunction
- Late Disease – Persistent arthritis and neurological symptoms

Diagnosis

- History and physical
- Serology

Treatment

- Doxycycline

ROCKY MOUNTAIN SPOTTED FEVER

- Rickettsia rickettsii
- Wood/Dog tick

Clinical Manifestations

- Fevers, myalgias, headaches, nausea/vomiting
- Red maculopapular rash on wrists and ankles > centrally
- Eventually, coma and organ failure

Treatment

- Doxycycline

STREPTOCOCCAL PHARYNGITIS VS. MONONUCLEOSIS

STREPTOCOCCAL PHARYNGITIS

- Group A beta hemolytic streptococcus

Clinical Manifestations

- Fever
- Pharyngotonsillar exudate
- Anterior cervical LAD
- Absence of cough

Diagnosis

- Rapid strep
- Definitive – Throat culture

Treatment

- Penicillin G (Macrolides if PCN allergic)

MONONUCLEOSIS

- Epstein Barr Virus

Clinical Manifestations

- Fever
- Sore throat
- Posterior cervical LAD
- Splenomegaly

Diagnosis

- Monospot
- Peripheral smear – atypical lymphocytes

Treatment

- Supportive

CHICKEN POX VS. SHINGLES

CHICKEN POX

- Varicella-zoster virus

Clinical Manifestations

- Pruritic vesicular rash develops over several days
- Develops within 2 weeks of exposure
- Prodrome: fever, malaise, decreased appetite then rash 24 hours later

Diagnosis

- Made clinically

Complications

- Soft tissue infection
- Neurologic complication

Immunization

- Varicella vaccine
 - <4 y/o – one dose after age 12 months
 - >4 y/o – two doses separated by at least 28 days

Treatment

- Supportive care

SHINGLES

- Herpes-zoster virus caused by varicella virus

Clinical Manifestations

- Erythematous papules which progress to vesicles or bullae
- Limited to one dermatome
- Can be recurrent in immunocompromised patient

Diagnosis

- Made clinically

Treatment

- Antiviral therapy
- Analgesic for neuritis

FOOD POISONING

SHIGELLA

Etiology

- Contaminated food and water
- Direct person to person contact

Clinical Manifestations

- Crampy lower abdominal pain
- High fever
- Explosive watery diarrhea – Bloody/mucous
- Febrile seizures possible in children
- WBC > 50,000

Diagnosis

- Stool culture

Treatment

- Fluoroquinolones
- Supportive therapy
- Bactrim

SALMONELLA

Etiology

- Poultry products (dairy, meat, and eggs)

Clinical Manifestations

- Crampy abdominal pain
- High fever
- Mucous diarrhea (pea soup)
- Vomiting
- Symptoms last 4-7 days

Diagnosis

- Stool culture

Treatment

- Usually self-limiting
- Azithromycin

LUNG INFECTIONS

PERTUSSIS

- Highly contagious infection
- Spread by respiratory droplets

Clinical Manifestations

- Starts with URI symptoms
- Severe coughing fits (whooping sound)
- Post vomiting emesis

Diagnosis

- Nasopharyngeal swab
- Polymerase chain reaction testing

Treatment

- Erythromycin
- Macrolide

INFLUENZA

- Highly contagious infection
- Spread by respiratory droplets

Clinical Manifestations

- Symptoms begin abruptly
- Fevers, chills, malaise, myalgias
- Headache, coryza, nausea
- Nonproductive cough, sore throat

Diagnosis

- Rapid immunofluorescence assays

Treatment

- Supportive
- Antivirals within 48 hours

Musculoskeletal

JOINT CRYSTALS

GOUT

- Most common in males
- Uric acid crystals

Synovial Fluid

- Negative birefringement
- Needle-shaped

Joints

- First MCP Most common

Treatment

- First line - NSAIDs
- Colchicine
- Steroids

Prophylaxis Treatment

- Allopurinol

PSEUDOGOUT

- Most common in females
- Calcium pyrophosphate crystals

Synovial Fluid

- Positive birefringement
- Rhomboid-shaped

Joints

- Knee most common

Treatment

- First line - Steroids (intraarticular or oral)
- NSAIDs

Prophylaxis Treatment

- Colchicine

FRACTURES

COLLES FRACTURE

Radiographic Findings

- FOOSH with wrist extension
- Distal radius fracture with dorsal angulation
- "Dinner fork" deformity

Diagnosis

- Lateral X-ray

Treatment

- Sugar tong splint

SMITH'S FRACTURE

Radiographic Findings

- FOOSH with wrist extension
- Distal radius fracture with central angulation
- "Garden spade" deformity

Diagnosis

- Lateral X-ray

Treatment

- Sugar tong splint

FEMORAL HEAD

LEGG-CALVE-PERTHES DISEASE

- Idiopathic osteonecrosis of the femoral head

Age

- 4-10yr males

Symptoms

- Painless limping, worse with activity
- Loss abduction and internal rotation

Diagnosis

- Frog leg view X-ray
- MRI

Treatment

- Observation if mild, bed rest suggested
- Abduction bracing - >5yr
- Surgery

Complications

- Hip arthritis

SLIPPED CAPITAL FEMORAL EPIPHYSIS

- Femoral head slips posterior and inferior at growth plate

Age

- 7-16yr obese

Symptoms

- Hip, thigh and knee pain with limp
- Loss of external rotation

Diagnosis

- Frog leg view X-ray
- MRI

Treatment

- ORIF non-weight bearing with crutches

Complications

- Hip arthritis
- Chondrolysis
- Osteonecrosis

ARTHRITIS

RHEUMATOID ARTHRITIS

- Chronic inflammation with bone erosion, cartilage destruction and joint loss

Presentation

- Systemic symptoms - Fever, fatigue, weight loss
- Morning joint stiffness
- Worse with rest
- Swollen, tender, "boggy" joints
- Boutonniere and swan neck deformity

Diagnosis

- Rheumatoid factor and anti-citrullinated Peptide antibodies
- Osteopenia/erosions on X-ray
- Arthritis > 3 joints for > 6 weeks

Treatment

- DMARDs (methotrexate)
- NSAIDs
- Low dose corticosteroids

OSTEOARTHRITIS

- Articular cartilage damage and degeneration

Presentation

- Symptoms in weight bearing joints
- Evening joint stiffness
- Improves with rest
- Non-inflammatory "hard" joint
- Heberdens and Bouchards node

Diagnosis

- Joint space loss
- Osteophytes on X-ray

Treatment

- Acetaminophen
- NSAIDs
- Low dose corticosteroids

BACK PAIN

HERNIATED DISC

- Pain in dermatomal pattern
- Most common at L5-S1
- Disc degeneration

Clinical Manifestations

- Back pain radiating through thigh and buttock
- Positive straight leg raise
- Positive crossover test
- Strength, reflex and sensory deficits

Treatment

- Observe, PT, pain meds, surgery

SPINAL STENOSIS

- Narrowing of spinal canal
- Most common in 60yr

Clinical Manifestations

- Back pain with paresthesias in one or both extremities
- Worse with extension (standing)
- Relieved with flexion (sitting)

Treatment

- Lumbar epidural injections and laminectomy
- Physical therapy



Neurology

HEMATOMAS

EPIDURAL HEMATOMA

- Arterial
- Brief period of unconsciousness with headache and confusion followed by lucid interval

Diagnosis

- CT scan: Bi-convex

Treatment

- Surgery

SUBDURAL HEMATOMA

- Venous
- Slower onset of symptoms but similar to epidural

Diagnosis

- CT scan: Crescent shape

Treatment

- Surgery

HEADACHES

CLUSTER HEADACHE

- Most common in males
- Unilateral periorbital pain
- Lasts <2 hours

Triggers

- Worse at night
- ETOH
- Stress

Symptoms

- Horner's syndrome
- Nasal congestion/rhinorrhea

Treatment

- 100% O2, anti-migraine meds

MIGRAINE HEADACHE

- Most common in females
- Lateralized throbbing
- Lasts 4-72 hours

Triggers

- Physical activity
- ETOH
- Stress
- OCP/menstruation
- Specific food (chocolate)

Symptoms

- Photophobia
- Nausea/Vomiting

Treatment

- Triptans, IV Dihydroergotamine, avoid triggers
- Antiemetics
- Analgesics

PARKINSON'S DISEASE VS. HUNTINGTON DISEASE

PARKINSON'S DISEASE

- Idiopathic dopamine depletion
- Age of onset: 45-65yr

Clinical Manifestations

- Tremors - worse at rest (pill-rolling)
- Bradykinesia
- Rigidity
- Masked facies
- Postural instability

Treatment

- Levodopa
- Anticholinergic drugs

HUNTINGTON DISEASE

- Neurodegenerative
- Age of onset: 30yr (Fatal within 20y)

Clinical Manifestations

- Initial behavioral changes
- Chorea
- Dementia

Treatment

- Antidopaminergic agents
- Benzodiazepines
- Neuroleptics

DEMENTIA VS. DELIRIUM

DEMENTIA

- Alert
- Gradual onset
- Progressively worsens
- Irreversible

Risk Factors

- Age
- Family history

Treatment

- Cholinesterase inhibitor
- NMDA antagonist

DELIRIUM

- Impaired loss of consciousness
- Acute and abrupt onset
- Fluctuating
- Reversible

Treatment

- Treat underlying cause
- Supportive care
- Avoid triggers

THIAMINE DEFICIENCIES

WERNICKE'S ENCEPHALOPATHY

Causes

- Misuse of alcohol
- Thiamine deficiency

Symptoms

- Ophthalmoplegia
- Ataxia
- Encephalopathy

Treatment

- Supplements of thiamine

Complications

- If left untreated, can lead to coma and death

KORSAKOFF'S SYNDROME

- Late neuropsychiatric manifestation of Wernicke's encephalopathy

Causes

- Misuse of alcohol
- Thiamine deficiency

Symptoms

- Amnesia/minimal content
- Apathy
- Lead to chronic memory loss
- Confabulation

Treatment

- Supplements of thiamine
- Social support

BELL'S PALSY VS. STROKE

BELL'S PALSY

- Idiopathic, unilateral CN VII palsy

Cause

- Most common cause; HSV and DM

Symptoms

- Sudden onset over hours
- Unilateral facial paralysis
- Unable to lift affected eyebrow & wrinkle forehead
- Drooping corner of mouth
- Affects just the face

Diagnosis

- Diagnosis of exclusion

Treatment

- Prednisone
- Artificial tears

STROKE

- Occlusion due to thrombosis/embolus

Cause

- Most common due to HTN and atherosclerosis

Symptoms

- Sudden onset
- Contralateral sensory/motor loss
- Able to wrinkle forehead
- Hemiparesis, aphasia, spatial deficit
- Affects face, arm & leg

Diagnosis

- Non-contrast CT scan

Treatment

- Thrombolytic therapy
- BP management
- Statins

Psychology

EATING DISORDERS

ANOREXIA NERVOSA

Presentations

- Below normal body weight
- Self-starvation
- Misuse of weight loss meds and laxatives
- Intense fear of gaining weight
- Amenorrhea
- Infertility
- Fatigue
- Palpitations
- Bloating

Treatment

- Psychotherapy (inpatient/outpatient)
- SSRI
- Nutritional rehabilitation

BULIMIA NERVOSA

Presentations

- Normal or overweight
- Binge-eating
- Purging
- Irregular menses
- Bloating
- Damage to esophagus
- Tooth enamel erosion
- Callus finger

Treatment

- Cognitive behavioral therapy
- SSRI
- Nutritional rehabilitation

PERSONALITY DISORDERS

HISTRIONIC

Symptoms

- Self-absorbed
- Center of attention
- Overly emotional/dramatic
- Early adulthood
- F>M

Diagnosis

- Appearance
- Behavior
- History
- Psychological evaluation

Treatment

- Psychotherapy and group therapy

NARCISSISTIC

Symptoms

- Self-importance
- Needs praise and attention
- Fragile self-esteem/jealous of others
- Teens or early adulthood
- M>F

Diagnosis

- Appearance
- Behavior
- Psychological evaluation

Treatment

- Psychotherapy and group therapy

SUBSTANCE ABUSE VS. DEPENDENCE

SUBSTANCE ABUSE

- Intense desire to use

Symptoms

- Too much too often
- Failure to fulfill responsibilities
- Becomes physically hazardous
- Using despite knowing there is a problem

SUBSTANCE DEPENDENCE

- Physical need or addiction

Symptoms

- Tolerance and withdrawal
- Can no longer stop or limit
- Isolates self from others
- Often delusional

Complications

- Can cause physical harm

PERSONALITY DISORDERS

ANTI-SOCIAL PERSONALITY DISORDER

Symptoms

- Behavior deviates from the norms of society
- Violates the rights of others
- Criminal acts (setting fires)
- Lack of empathy
- Must be 18yr, usually male (childhood conduct disorder)

Treatment

- Psychotherapy

BORDERLINE PERSONALITY DISORDER

Symptoms

- Unstable, unpredictable behavior
- Mood swings
- Self harm
- Can't be alone, but inappropriate towards people
- Usually female

Treatment

- Psychotherapy

Pulmonary

PNEUMOTHORAX – SIMPLE VS. TENSION

SIMPLE PNEUMOTHORAX

- No underlying lung disease (ruptured bleb)
- Occurs in 30yr thin male, smokers

Clinical Manifestations

- Unilateral, pleuritic chest pain
- Sudden onset of dyspnea
- Increased hyperresonance, decreased tactile fremitus, decreased breath sounds
- Tachycardia, tachypnea, hypotension
- Increased JVD

Diagnosis

- Expiratory CXR

Treatment

- Observation if small

TENSION PNEUMOTHORAX

- Positive air pressure pushes lungs, trachea and heart to contralateral side
- Due to trauma

Clinical Manifestations

- Unilateral, pleuritic chest pain
- Sudden onset of dyspnea
- Increased hyperresonance, decreased tactile fremitus, decreased breath sounds
- Tachycardia, tachypnea, hypotension
- Increased JVD
- Pulsus paradoxus

Diagnosis

- Expiratory CXR

Treatment

- Needle thoracostomy

PLEURAL EFFUSION

TRANSUDATE - CLEAR

- Fluid due to increased hydrostatic and/or decreased oncotic pressure in vessels
- Non infectious or pleural disease
- Decreased protein

Causes

- CHF, nephrotic syndrome, cirrhosis

EXUDATE - CLOUDY

- Local factors increase vascular permeability
- Infections/Inflammation

Cause

- Pulmonary embolism, pneumonia, TB

Testing

- Plural fluid analysis
- Light's criteria via thoracentesis

SARCOIDOSIS VS. PNEUMOCONIOSES

SARCOIDOSIS

- Chronic inflammatory granulomatous disease
- Unknown cause
- Multi-organ involvement (primarily lungs)

Cause

- Unknown

Clinical Manifestations

- Dry cough, dyspnea, chest pain
- Skin-Erythema nodosum
- Eyes-Uveitis
- Myocardial and rheumatologic disease

Diagnosis

- CXR - b/l hilar LAD
- Tissue biopsy - noncaseating granulomas
- PFT and CT scan

Treatment

- Observation - most resolve on their own
- Oral corticosteroids
- Methotrexate

PNEUMOCONIOSES

- Chronic fibrotic lung disease (interstitial lung disease)
- Caused by inhalation of dusts
- Occupational lung disease
- Positive restrictive lung disease

Clinical Manifestations

- Non-productive cough
- Dyspnea on exertion
- Joint pain and weight loss

Diagnosis

- CXR
- Biopsy
- High resolution CT

Treatment

- Supportive
- Steroids
- Oxygen

Prevention

- Well fitting mask
- Good ventilation

Reproductive

GESTATIONAL HTN VS. PREECLAMPSIA

GESTATIONAL HTN

- Newly elevated BP after 20 weeks

Clinical presentation

- Asymptomatic

Diagnosis

- Increase BP > 140/90
- NO proteinuria

Treatment

- Observation
- Meds-Hydralazine

PREECLAMPSIA

- Newly elevated BP after 20 weeks

Clinical presentation

- Headache, visual symptoms
- Fetal growth restriction
- Edema

Diagnosis

- Increase BP > 140/90 (Mild)
- 160/110 (Severe)
- Proteinuria
- Thrombocytopenia (Severe)
- HELLP syndrome (Severe)

Treatment

- Delivery is the cure
- Meds-Hydralazine, Labetalol

OVARIAN CYSTS VS. OVARIAN CANCER

OVARIAN CYSTS

- Cystic enlargement of the ovaries
- Age - Reproductive years

Clinical Manifestations

- Unilateral RLQ or LLQ pain
- Menstrual changes
- Dyspareunia

Physical Exam

- Mobile palpable cystic adnexal mass
- Unilateral pelvis tenderness

Diagnosis

- Pelvis ultrasound

Treatment

- Supportive; spontaneously resolve
- OCP

OVARIAN CANCER

- Highest mortality rate of GYN cancer
- Age - 50yr nulliparity with family history (BRCA1)

Clinical Manifestations

- Asymptomatic until late
- Abdominal fullness, back pain
- Irregular menses/postmenopausal bleeding

Physical Exam

- Solid, fixed, irregular mass
- Sister Mary Joseph's node
- Ascites

Diagnosis

- Biopsy

Treatment

- Monitor CA - 125 for progress
- Surgery, chemotherapy

DYSFUNCTIONAL UTERINE BLEEDING (DUB) VS. ENDOMETRIAL CANCER

DUB

- Abnormal frequency/intensity of menses
- Age - Teenagers and perimenopausal

Symptoms

- Menometrorrhagia
- Amenorrhea
- Menorrhagia

Diagnosis

- Diagnosis of exclusion
- Test HCG

Treatment

- Supportive
- OCP
- D&C is curative

ENDOMETRIAL CANCER

- Most common GYN cancer
- Age-55yr postmenopausal

Symptoms

- Abnormal vaginal bleeding
- Postmenopausal bleeding
- Menorrhagia

Diagnosis

- Endometrial biopsy (Adenocarcinoma)

Treatment

- Hysterectomy
- Chemotherapy and radiation

CERVICITIS VS. PELVIC INFLAMMATORY DISEASE

CERVICITIS

- Most commonly caused by chlamydia and N. gonorrhoeae

Risk Factors

- Multiple sex partners, unprotected sex
- <25 yr

Clinical Manifestations

- Asymptomatic
- Purulent cervical discharge
- Dysuria/Dyspareunia
- Negative Chandelier sign

Diagnosis

- Nucleic acid amplification

Treatment

- Azithromycin OR Doxycycline

PELVIC INFLAMMATORY DISEASE

- Most commonly caused by chlamydia and N. gonorrhoeae

Risk Factors

- Multiple sex partners, unprotected sex
- <25 yr

Clinical Manifestations

- Lower abdominal pain
- Purulent cervical discharge
- Dysuria/Dyspareunia
- Positive Chandelier sign

Diagnosis

- Pelvic ultrasound, +Gram stain

Treatment

- Doxycycline AND Ceftriaxone

FIBROCYSTIC BREAST DISEASE VS. FIBROADENOMA

FIBROCYSTIC BREAST DISEASE

- Fluid filled breast cyst due to exaggerated response to hormones

Presentation

- Multiple mobile, well demarcated areas in breast tissue
- Tender
- No axillary involvement
- No nipple discharge
- Increase in size during menstruation

Treatment

- Eventually reabsorb fluid, but fine needle aspiration can be done

FIBROADENOMA

- Composed of glandular and fibrous tissue

Presentation

- Smooth well-circumscribed, mobile rubbery lump
- Non-tender
- No axillary involvement
- No nipple discharge
- No correlation to menstruation

Treatment

- Most reabsorb over time

ABRUPTIO PLACENTA VS. PLACENTA PREVIA

ABRUPTIO PLACENTA

- Premature separation of placenta from uterine wall

Symptoms

- PAINFUL vaginal bleeding
- Severe abdominal pain
- Tender and rigid uterus
- Fetal distress

Treatment

- Immediate delivery

PLACENTA PREVIA

- Abnormal placenta implantation on or close to cervical os

Symptoms

- PAINLESS vaginal bleeding
- No abdominal pain
- Soft non-tender uterus
- No fetal distress

Treatment

- Deliver by cesarean section when fetus is stable and lungs mature



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